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George I. Norman

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EXAMINER

VU, NGOC K

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/620,303	<b>Applicant(s)</b> NORMAN, GEORGE I.	
	<b>Examiner</b> Ngoc K. Vu	<b>Art Unit</b> 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-84 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-84 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/12/2004, 3/15/2004</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "the digital content requests" in line 1. There is insufficient antecedent basis for this limitation in the claim.

### *Drawings*

3. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

4. The disclosure is objected to because of the following informalities: the original specification does not support the features of "**concurrently** transmitting a second digital data stream on the first channel in a second transmission direction" in claim 65 and "**concurrently** transmit user requested data on a plurality of user channels within the spectrum historically dedicated to analog broadcast signal" in claim 67. (Emphasis added). Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-4, 6, 7, 9, 10-12, 25-28, 30-32, 35-38, and 44 are rejected under 35

U.S.C. 102(e) as being anticipated by Leatherbury et al. (US 20020136231 A1).

Regarding claim 1, Leatherbury teaches an apparatus for delivering digital services, the apparatus comprising: a broadcast data source (115-116 of figure 1; 215 of figure 2) configured to provide broadcast data; a user data source (209 of figure 2) configured to provide user requested data (e.g., VOD); a transmitter (via 205 – see figure 2), configured to transmit the broadcast data on a broadcast channel within a spectrum historically dedicated to analog broadcast signals (within RF cable television spectrum); and the transmitter further configured to transmit the user requested data on a user channel within the spectrum historically dedicated to analog broadcast signals (0041-0043, 0036, 0046, 0048-0050, 0054, 0057-0058).

Regarding claim 2, Leatherbury teaches wherein the spectrum historically dedicated to analog broadcast signals is a VHF spectrum (e.g., 5MHz-1GHz) (see 0041).

Regarding claim 3, Leatherbury teaches that the broadcast data source is a broadcast network (0036; 0048).

Regarding claim 4, Leatherbury teaches that the system further comprising a digital content server (e.g., 209) configured to store digital content (see 0048).

Regarding claim 6, Leatherbury teaches that system comprises back-channel communications (e.g., upstream - see 0038-0047).

Regarding claims 7 and 10, Leatherbury teaches that the system comprises a back-channel receiver (207- figure 2) configured to directionally receive upstream data (see 0047).

Regarding claim 9, Leatherbury teaches that the system back channel communications include digital content requests (e.g., VOD - see 0048).

Regarding claim 11, Leatherbury teaches that the broadcast data comprises a television program (see 0036, 0048).

Regarding claim 12, Leatherbury teaches that the user requests data comprises a movie (e.g., VOD program - see 0036, 0048).

Regarding claim 25, Leatherbury teaches a method for delivering digital services, the method comprising: securing a license to broadcast within a spectrum historically dedicated to an analog broadcast signal (within RF cable television spectrum, e.g., 5MHz-1GHz); transmitting broadcast data on at least one broadcast channel within the historically dedicated spectrum (via 205); and transmitting user data (via 205) on at least user channel within the historically dedicated spectrum (0041-0043, 0036, 0046, 0048-0050, 0054, 0057-0058 and figure 2).

With respect to claims 26 and 28, 30 and 31, see rejections of claims 2, 7, 10, and 9, respectively.

Regarding claim 27, Leatherbury teaches that each 6 MHz forward band channel may contain multiple digital channels that are MPEG encoded (see 0042, 0045).

Regarding claims 32 and 35, see rejection of claim 11.

Regarding claim 36, see rejection of claim 12.

Regarding claims 37-38, Leatherbury teaches including receiving a program/channel selection or a program series selection from a user/viewer at 109 (see 0034, 0038).

Regarding claim 44, Leatherbury teaches installing a digital services delivery component comprising a transmitter (205 - see figure 2).

7. Claims 13-20, 24, 45-49, 52-57, and 60-62 are rejected under 35 U.S.C. 102(e) as being anticipated by Dolgonos et al. (US 20020147978 A1).

Regarding claim 13, Dolgonos teaches an apparatus for receiving digital services, the apparatus comprising: an antenna (16 – figures 1, 4) configured to receive a digitally encoded transmission signal within a spectrum historically dedicated to analog broadcast signals (e.g., UHF), the digitally encoded transmission signal comprising a plurality of channels including at least one broadcast channel (providing television programs) and at least one user-requested channel (e.g., providing email, Internet data...etc) (see 0005, 0019, 0022, 0023, 0026-0028, 0038; figure 1); and a receiver (34) configured to convert a selected channel within the digitally encoded transmission signal to a digital data stream (0026, 0036 and figures 1, 4).

Regarding claim 14, Dolgonos teaches that the system further comprises a back-channel transmitter (34 - figure 4) configured to conduct back-channel communications (upstream) (see 0026 and figures 1, 4).

Regarding claim 15, Dolgonos teaches that the back-channel transmitter is a wireless transmitter (see figures 1, 4, and 8, 0017, 0026).

Regarding claim 16, Dolgonos teaches digitally encoding a back-channel transmission signal within the spectrum historically dedicated to analog broadcast signals (see 0026, 0030).

Regarding claim 17, Dolgonos teaches that the antenna (16) is further configured to directionally transmit the back-channel transmission signal (see 0026, 0033).

Regarding claim 18, Dolgonos teaches that the antenna is configured to directionally receive the digitally encoded transmission signal (via 48 - figure 6; 0028).

Regarding claim 19, Dolgonos teaches that the digitally encoded transmission signal comprises television program (see 0038).

Regarding claim 20, Dolgonos teaches that the spectrum historically dedicated to analog broadcast signal is UHF (see 0036).

Regarding claim 24, Dolgonos teaches that the receiver is configured to receive an email message (see 0018, 0033).

Regarding claim 45, see rejection of claim 13.

Regarding claim 46, see rejection of claims 14 and 16.

Regarding claims 47-49 and 52, see rejection of claims 17-19 and 20, respectively.

Regarding claims 53-55, Dolgonos teaches transmitting email message from user via upstream to Internet (see 0033).

Regarding claims 56-57, Dolgonos teaches that in order to perverse upstream bandwidth in the cable plant, the system could be configured so that only one of the antenna nodes actually sends the request signals over the cable plant to the hub (see 0033).

Regarding claim 60, see rejection of claim 24.

Regarding claims 61-62, Dolgonos teaches selecting a program, e.g., pay-per-view, or a program series, e.g., television programs/shows (see 0023).

8. Claim 65 is rejected under 35 U.S.C. 102(e) as being anticipated by Rakib et al. (US 20040172658 A1).

Regarding claim 65, Rakib teaches a method for providing digital services, the method comprising: securing a license to broadcast within a spectrum historically dedicated to an analog broadcast signal (see 0038, 0119); transmitting a first digital data stream (e.g., video

signal) on a first channel in a first transmission direction (delivering to a television set 28); and concurrently transmitting a second digital data stream (telephone/Internet data) on the first channel in a second transmission direction (delivering to a PC) (transmitting the digital data encoding video signal, telephone and Internet data onto one or more downstream channel for simultaneously transmission on the HFC cable plant with regular TV programming see 0056 and figure 3).

9. Claims 67-76 and 78-81 are rejected under 35 U.S.C. 102(e) as being anticipated by Chan (US 20030196211 A1).

Regarding claim 67, Chan discloses a system for delivering digital services, the method comprising: a transmitter (provider/headend) to transmit broadcast data on a plurality of broadcast channels (e.g., 364 - figure 3) within a spectrum historically dedicated to analog broadcast signals and concurrently transmit user requested data on a plurality of user channels (e.g., 372 - figure 3) within the spectrum historically dedicated to analog broadcast signals; and a receiver (STB) configured to convert a selected broadcast channel of the plurality of broadcast channels to a digital data stream (see figures 1, 3, 0031, 0032, 0042, 0046).

Regarding claim 68, Chan teaches that wherein the spectrum historically dedicated to analog broadcast signals is a VHF spectrum (e.g., 6MHz - 0031, 0032).

Regarding claim 69, Chan teaches that wherein the broadcast data is received from a broadcast network (see 0021, 0023).

Regarding claim 70, Chan teaches that the system further comprising a back-channel receiver (508) configured to conduct back-channel communications (see figure 5, 0033, 0043).



Regarding claim 71, Chan teaches that wherein the back-channel receiver is a telephone modem (see 0043).

Regarding claim 72, Chan teaches that wherein the back-channel communications include digital content requests (see 0033, 0043).

Regarding claim 73, Chan teaches that wherein the back-channel receiver is further configured to directionally receive data (see figure 5; 0033).

Regarding claim 74, Chan teaches that wherein the broadcast data comprises digital content such as a movie and/or a television program (see 0030, 0042).

Regarding claim 75, Chan teaches that wherein the user requested data comprises digital content such as a movie and/or a television program (see 0030, 0042).

Regarding claim 76, Chan teaches that the system further comprising a digital content server (within provider or headend) configured to fulfill digital content requests from a plurality of users (see 0043).

Regarding claim 78, Chan teaches the system further comprising a back-channel transmitter (508) configured to conduct back-channel communications (figure 5; 0033, 0043).

Regarding claim 79, Chan teaches that wherein the back-channel transmitter is a telephone modem (see 0043).

Regarding claim 80, Chan teaches that wherein the back-channel communications comprise digitally encoding a back-channel transmission signal within the spectrum historically dedicated to analog broadcast signals (see 0033).

Regarding claim 81, Chan teaches that wherein the receiver is further configured to receive digital content such as a movie and/or a television program (see 0030, 0042).

10. Claims 82-84 are rejected under 35 U.S.C. 102(e) as being anticipated by Miller et al. (US 5,930,231 A).

Regarding claim 82, Miller teaches an apparatus (see figure 2) for delivery telephone service to a geographic region, the apparatus comprising: a transmitter (32) configured to transmit telephony data on a plurality of user channels within a spectrum historically dedicated to analog broadcast signals (e.g., 3MHz); and a back-channel receiver (34) configured to receive telephony data on a plurality of back-channels (5MHz-30MHz - see col. 13, lines 16-26; col. 15, lines 1-8; col. 16, lines 16-21; col. 17, lines 4-13; figure 2).

Regarding claim 83, Miller teaches that the spectrum historically dedicated to analog broadcast signals is a VHF spectrum (3MHz - see col. 16, lines 16-21).

Regarding claim 84, Miller teaches that wherein the back-channels are transmitted within the spectrum historically dedicated to analog broadcast signals (see col. 17, lines 5-10).

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 5, 8, 29, 33, and 39-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leatherbury et al. (US 20020136231 A1).

Regarding claims 5 and 33, Leatherbury teaches that server 209 provides digital content (see 0048) but does not explicitly teach that the server is further configured to provide an encryption key to enable reception of encrypted digital content. Official Notice is taken that controlling access to media content by decrypting encrypted content using a key is well known

in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the server of Leatherbury by decrypting encrypted content by using a key in order to control access to the content in a secure way.

Regarding claims 8 and 29, Leatherbury does not explicitly teach the user-back channel comprises digital subscriber line (DSL) interface. Official Notice is taken that using DSL interface in broadband environment is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Leatherbury by including a DSL interface in order to have advantages of greater upstream bandwidth and lower latency.

Regarding claims 39-41, Leatherbury teaches distributing the broadcast content to viewers (see figures 1-2), but not explicitly teach broadcasting data at a time published in a newspaper and or published time is published via a programming selection channel. Official Notice is taken that providing an EPG on a television having broadcast time via a channel selection and/or providing an EPG published a newspaper having broadcast time are well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Leatherbury by including an EPG on a television having broadcast time via a channel selection and/or an EPG having broadcast time published in a newspaper in order to allow viewers to easily view the schedule of future broadcast programs in advance.

Regarding claims 42-43, Leatherbury does not teach providing broadcast data comprising a digital edition of a newspaper. Official Notice is taken that providing electronic newspaper over a broadcast network is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the

system of Leatherbury by broadcasting electronic newspaper in order to enhance broadband service.

13. Claims 21, 23, 50, 51, 63, 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dolgonos et al. (US 20020147978 A1).

Regarding claim 21, Dolgonos's system 200 provides video signals from a plurality of sources to subscribers, e.g., servers 220 (see 0005 and figure 2). Dolgonos fails to teach a program selector configured to enable selection of digital content. Official Notice is taken that selecting a particular content by using a selector or an apparatus at a server in a broadcast system to selectively provide the content to subscribers is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Dolgonos by including a program selector configured to enable selection of content in order to selectively provide the content to subscribers as desired.

Regarding claim 23, Dolgonos does not teach a decryption module configured to decrypt encrypted digital content. Official Notice is taken that controlling access to media content by encrypting the content and decrypting the encrypted content is well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the server of Dolgonos by decrypting encrypted content in order to control access to the content in a secure way.

Regarding claims 50-51 and 63-64, Dolgonos does not teach providing broadcast data comprising a digital edition of a newspaper. Official Notice is taken that providing electronic newspaper over a broadcast network is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Dolgonos by broadcasting electronic newspaper in order to enhance broadband service.

14. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leatherbury et al. (US 20020136231 A1) in view of Kim et al. (US 7,225,162 B2).

Regarding claim 34, Leatherbury fails to teach purchasing an encryption key comprises visiting a web page. However, Kim teaches selling a key for decrypting via a web page as shown in figure 6 (see col. 5, lines 3-10 and 45-53; figure 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Leatherbury by selling a key for decrypting an encrypted content via a web page as taught by Kim order to save time for a transaction between a viewer and provider.

15. Claims 58-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dolgonos et al. (US 20020147978 A1) in view of Kim et al. (US 7,225,162 B2).

Regarding claims 58-59, Dolgonos fails to teach purchasing an encryption key to enable reception of encrypted digital content and wherein purchasing the encryption key comprises visiting a web page. However, Kim teaches purchasing a key for decrypting an encrypted content via a web page as shown in figure 6 (see col. 5, lines 3-10 and 45-53; figure 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Dolgonos by purchasing a key for decrypting an encrypted content via a web page as taught by Kim order to save time for a transaction between a viewer and provider.

16. Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib et al. (US 20040172658 A1).

Regarding claim 66, Rakib's system providing telephone service (see 0037-0038) but Rakib does not explicitly teach providing wireless telephone service. Official Notice is taken that providing wireless telephone service such as cellular telephone service is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the system of Rakib by including wireless telephone service in order to provide more convenience to users to make or receive a phone call.

17. Claim 77 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan (US 20030196211 A1).

Regarding claim 77, Chan fails to teach that the digital content server is further configured to encrypted digital content. Official Notice is taken that controlling access to media content by encrypting content is well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the server of Chan by encrypting content in order to control access to the content in a secure way.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 571-272-7306. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Ngoc Vu/  
NGOC K. VU  
PRIMARY EXAMINER  
Art Unit 2623

January 28, 2008